Schedule 12

Cross Functional and ITIL Services

to

Request for Proposal
for the
Provision of IT Infrastructure Operations
and Managed Workplace Services
[UNHCR RFP/2018/1068]
(the “RFP”)

effective _____ 2018

between

The Office of the United
Nations High Commissioner
for Refugees

and Contractor

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1 Introduction

1.1. This Schedule 12 sets forth generic services/requirements required to be performed and/or adhered to by the Contractor with respect to all Services described in the Agreement.

1.2. Unless the context otherwise requires, capitalized terms used but not defined in this Schedule 12 shall have the meaning given to them in Schedule 1 (Technical Definitions) or the Agreement.

2 Cross Functional and ITIL Services

2.1. General

Delivery of Services to the UNHCR will be enabled through the use of a common Cross Functional set of IT Service Management (ITSM) processes and tools that will be utilized across all delivery teams, including Third Party providers, and integration of the ITSM suite with UNHCR systems, tools, and interfaces.

The following are the key high-level objectives for the Cross Functional Services:

- Achieve the Service Levels applicable to the Cross Functional Services;
- Leverage Contractor's IT management and operational process capabilities to increase UNHCR service delivery and service support capabilities;
- Ensure that ITSM functions are consistent across Services areas;
- Provide Cross Functional Services applicable to all current and future Software, Hardware and Services introduced to the service environment; and,
- Continually improve service delivery while lowering IT costs over time through tools automation and process optimization.

In addition, Services will be delivered by following Service Management Processes as defined by UNHCR and best practices conforming to the ITIL (2011 edition) standards in agreement with UNHCR. Contractor is expected to follow or interact as required, with the processes including but not limited to:

(a) Service Support services;

(b) Change, Release & Deployment, and Control services;

(c) Service Delivery services.

2.2. Personnel

Providing trained and qualified personnel is essential to effective service delivery.

Contractor shall:

(a) Provide personnel with skills and competencies that allow for effective delivery of Services;

(i) are familiar with techniques of customer interaction and high standards of customer support;

(ii) are familiar with UNHCR standard desktop, platform, and network devices;

(iii) understand the UNHCR service level agreement and prioritization of Incidents and Service Requests;

(iv) have been on-boarded with knowledge of the UNHCR business, mission, security awareness, and policies.

(b) designate a Cross Functional Lead who possesses and maintains ITIL Service Management or ITIL Practitioner Certification, who serves as the focal point for coordinating and communicating ITIL practice disciplines with all other Contractor account leads in the areas of Service Transition (Change, Release & Deployment, and Asset & Configuration Management), Service Operations (Incident, Service Desk and Problem Management), and Service Operations (Service Level Management and Financial Management);

3 Service Strategy

3.1. Resource Rationalization

Contractor is responsible for working with UNHCR for the effective evaluation of customer demand and the rationalization of resources to effectively meet competing demands.

(a) Work with UNHCR to provide a demand forecast of projected resource requirements and resource constraints on a monthly basis; and

(b) provide demand management coordination with UNHCR where resources and schedules are not in alignment.

3.2. Documentation

All documentation created and maintained by the Contractor will be subject to approval by UNHCR and will conform to agreed documentation standards and format. This documentation will remain the exclusive property of UNHCR.

Contractor shall:

(a) Create and maintain Contractor-obligated documentation for projects, procedures, Services, Equipment, and Software for which Contractor is responsible (e.g. solution proposals, project plans, backup procedures, Service Desk help files and knowledge articles);

(b) ensure that operations documentation related to the Services is up to date, accurate and posted in the designated repository (e.g. Service Management Manual);

(c) document Application requirements that affect operations, along with procedural information and contact information for each Application;

(d) make all documentation available electronically (including all source files); and

(e) review documentation periodically for completeness and accuracy, verifying that all documentation is present, organized, readable, and updated.

3.3. Risk Management

The objective of ITIL Risk Management is to identify, assess and control risks. This includes analyzing the value of assets to the business, identifying threats to those assets, and evaluating how vulnerable each asset is to those threats. Contractor is charged with providing Risk Management related to the IT environment and Services within the context of UNHCR's overall business risks.

Contractor shall:

(a) Work with UNHCR in establishing on-going activities, including supporting processes, for the identifying, analyzing, quantifying and managing risks in the IT environment;

(b) create and maintain a Risk Register as an on-going log of identified risks that at a minimum contains:

  (i) Scope of each risk, including the affected infrastructure or Services;

  (ii) owner of each risk who will be responsible for mitigation;

  (iii) priority of each risk;

  (iv) status of each risk;

  (v) severity of each risk;

  (vi) decisions by UNHCR as to mitigations for each risk; and

  (vii) supporting information or associated policy or requirements.

(c) support UNHCR review of the Risk Register with on a regular basis, and provide recommendations for mitigation or disposition; and

(d) support UNHCR in developing an overall Risk Management Plan for reducing risk in the IT environment on at least an annual basis.

4 Service Design

4.1. Service Level Management

Service Level Management (SLM) aims to negotiate Service Level Agreements with the customers and to design services in accordance with the agreed service level targets. This ITIL process is also responsible for ensuring that all Operational Level Agreements and Underpinning Contracts are appropriate, and to monitor and report on service levels.

Using Continuous Service Improvement (CSI), Contractor will maintain and improve business-aligned IT service quality through an on-going cycle of agreeing, monitoring, reporting, and reviewing IT service achievements according to the service levels described in Schedule 10 (Service Level Requirements) and its appendices.

4.2. Availability Management

ITIL Availability Management aims to define, analyze, plan, measure and improve all aspects of the availability of IT services. It is responsible for ensuring that all IT infrastructure, processes, tools, roles etc. are appropriate for the agreed availability targets.

Using Availability Management, Contractor will ensure that the level of service availability delivered for Services meets or exceeds the agreed needs of UNHCR, in a cost-effective

manner. Availability Management provides a point of focus for all availability-related issues, ensuring that availability targets are established, measured and achieved.

Contractor shall:

(a) Work with UNHCR to develop, document, and improve Availability Management processes;

(b) cooperate in information exchange to improve end-to-end Availability Management;

(c) communicate and coordinate the Availability Management process within Contractor's own organization;

(d) participate in defining Availability Management policies and procedures that will ensure the success of the Availability Management processes;

(e) participate in on-going Availability planning activities with UNHCR in coordination with Third-Party vendors;

(f) work with UNHCR to create, maintain, and effectively execute an agreed Availability Management Plan; and

(g) report issues and status related to Availability to UNHCR.

4.3. General Availability Management

Contractor shall:

(a) Implement the agreed Availability Management policies and procedures, to include methods, tools, roles, and activities for defining, monitoring, measuring, and reporting service availability;

(b) produce and maintain an Availability Plan that reflects the UNHCR contract and needs;

(c) provide advice and guidance to UNHCR on availability-related issues;

(d) ensure that service availability achievements meet or exceed agreed targets;

(e) assist with the diagnosis and resolution of availability related Incidents and Problems;

(f) monitor, measure, analyze, and report on the availability of all services, components, and resources;

(g) establish measures and reporting of availability, reliability, and maintainability that reflect UNHCR and User perspectives;

(h) provide trend analysis of availability, reliability, and maintainability;

(i) investigate underlying reasons for unacceptable availability;

(j) produce service improvement plans which address shortfalls in Availability and reliability; and

(k) implement UNHCR-approved service improvement plans.

4.4. The Availability Plan

The purpose of the Availability Plan is to ensure that existing and future availability requirements are provided cost effectively, maintain and improve the availability of current

services, define availability levels for new services, and, from time-to-time, modify availability requirements for existing services.

Contractor shall produce an Availability Plan, in conjunction with Capacity Management, that is agreed by UNHCR and that will incorporate the following:

(a) The scope of the Availability Management process in terms of services, systems, environments, Equipment, Software and, Applications;

(b) policies and procedures that ensure the success of the Availability Management process;

(c) roles, responsibilities, and activities of the Availability Management process;

(d) systems and tools that support the Availability Management process;

(e) integration and relationships with other Service Management processes;

(f) manners in which the success of the process will be monitored, measured, and reported;

(g) agreed vs actual levels of availability achieved;

(h) availability measurements that are UNHCR business- and customer-focused and which measure availability as experienced by the business and users;

(i) activities to address shortfalls in availability for existing IT services;

(j) options to meet new and changed requirements, including estimated costs; and

(k) a detailed description of the potential benefits and opportunities that exist for planned technology upgrades, including a description of anticipated availability benefits and the effort required to realize these benefits.

4.5. Availability Management Reporting

Contractor shall:

(a) Provide a monthly Outage report of service Outages related to the Services that affect Users irrespective of where the Outage occurred, including Incident, data, time, duration, and affected infrastructure and applications;

(b) provide a monthly Availability report in an agreed format that at minimum includes Availability statistics for each supported infrastructure and the associated applications and environments;

(c) provide trend analysis of Outages and Availability; and

(d) provide regular reporting on the Availability of the IT Service Management processes (e.g. Incident Management, Request & Deployment Management, Capacity Management) and the impact on Contractor's ability to provide Services.

4.6. Capacity Management

ITIL Capacity Management aims to ensure that the capacity of IT services and the IT infrastructure is able to deliver the agreed service level targets in a cost effective and timely manner. The Capacity Management process considers all resources required to deliver the IT service, and plans for short-, medium- and long-term business requirements.

Contractor shall:

(a) Work with UNHCR to develop, document, and improve Capacity Management processes;

(b) cooperate in information exchange to improve end-to-end Capacity Management;

(c) communicate and coordinate the Capacity Management process within Contractor's own organization;

(d) participate in defining Capacity Management policies and procedures that will ensure the success of the Capacity Management processes;

(e) participate in on-going Capacity planning activities with UNHCR in coordination with Third-Party vendors;

(f) work with UNHCR to create, maintain, and effectively execute an agreed Capacity Management Plan; and

(g) report issues and status related to Availability to UNHCR.

4.7. General Capacity Management

Contractor shall:

(a) Apply Capacity Management to all aspects of the contracted Services;

(b) implement the agreed Capacity Management policies and procedures, to include methods, tools, roles, and activities for defining, monitoring, measuring, and reporting service capacity;

(c) produce and maintain a Capacity Plan that reflects the UNHCR contract and needs;

(d) provide advice and guidance to UNHCR on capacity-related issues, including input towards capacity requirements of new systems and services to determine the necessary personnel, compute and network resources required;

(e) ensure that service capacity achievements meet or exceed agreed targets;

(f) assist with the diagnosis and resolution of capacity related incidents and problems;

(g) monitor resources and system performance, system utilization, capacity limits, and expected capacity needs, and record, measure, analyze, and report on the capacity of all services, components, and resources;

(h) establish measures and reporting of capacity that reflect UNHCR and User perspectives;

(i) provide trend analysis of current service and component utilization, and the estimating of future requirements, using trends and thresholds for planning upgrades and enhancements;

(j) verify that there is adequate Contractor capacity to meet service level requirements and work with UNHCR to achieve optimal utilization of capacity;

(k) advise UNHCR regarding the need for additional capacity, as appropriate;

(l) incorporate work schedules, seasonal workloads, and dependencies between elements of the Services into Capacity Management planning;

(m) perform short-term demand management as required to maintain delivery of the Services during failures, spikes in demand, or other spontaneous events;

(n) respond to capacity-related threshold events and recommending corrective actions;

(o) investigate underlying reasons for unacceptable capacity;

(p) produce improvement plans which address shortfalls in Capacity; and

(q) implement UNHCR-approved service improvement plans.

4.8. The Capacity Plan

The Capacity Plan documents the current levels of resource utilization and Service performance, and forecasts future requirements in consideration of UNHCR business strategies and plans. The plan must clearly document assumptions and include recommendations quantified in terms of resources required, costs, benefits, and impact.

Contractor shall at minimum include:

(a) An introduction section which briefly explains the background to the current capacity, how the Capacity Plan was produced and what it contains, such as:

(b) The current services, technology, and resources;

(i) current levels of capacity;

(ii) problems being experienced or envisaged due to over or under-capacity;

(iii) the degree to which service levels are being achieved or not achieved; and

(iv) changes made since the last issuance of the plan.

(c) a management summary highlighting issues, options, recommendations, and analysis of costs to benefits;

(d) a description of UNHCR business scenarios (both current and future) that have been accounted for, including the anticipated growth or reduction in existing services as well as potential or anticipated new services;

(e) a description of the assumptions made in executing all service management sub-processes of the Capacity Management process, such as Service Capacity Management and Component Capacity Management;

(f) a service summary articulating a service profile regarding the current provision for each service that is delivered, including volumes and the resulting resource utilization in light trends;

(g) a service forecast that include details of the new services planned and the growth or reduction in the use of existing services;

(h) a description of options for improving the effectiveness and efficiency of service delivery;

(i) produce or update the Capacity Plan quarterly;

(j) incorporate UNHCR capacity planning recommendations into the Capacity Plan; and

(k) be forward-looking by at least one contract year.

4.9. Business Capacity Management

Business Capacity Management translates business plans and needs into requirements for IT services and architecture. As UNHCR's business changes, so do its IT service

requirements. Changes in service requirements in turn have an impact on demand for capacity.

UNHCR employs Business Capacity Management to facilitate alignment between its future IT and business requirements. Contractor will from time-to-time be asked to participate in the UNHCR Business Capacity Management planning process. In such instances, Contractor's responsibilities are to be responsive and collaborative.

4.10. Service Capacity Management

The objective of Service Capacity Management is to manage, control, and predict the performance and capacity of operational services. This includes initiating proactive and reactive action to ensure that the performances and capacities of services meet their agreed targets.

Contractor is responsible to UNHCR for Service Capacity Management of the Services used by UNHCR Users. Contractor's responsibilities include the following:

(a) The management, control, and prediction of the end-to-end performance and capacity of the production Services usage and workload;

(b) the performance of all Services, as detailed in service targets within SLAs, is monitored and measured, and that the collected data is recorded, analyzed, and reported;

(c) proactive and reactive action to ensure that performance of services meet agreed business targets;

(d) use of automated thresholds to manage operational services to ensure that situations where service targets are breached or threatened are identified and actions implemented to minimize or avoid potential impact;

(e) investigate and research threshold breaches and near-misses to determine remedial action that should be taken; then plan and perform such remedial actions through the Change Management Process; and

(f) employ regular monitoring, identification of exceptions, and manual review of reports and trends.

4.11. Component Capacity Management

The objective of Component Capacity Management is to manage, control, and predict the performance, utilization, and capacity of IT resources and individual IT components.

Contractor shall:

(a) Provide management, control, and prediction of performance, utilization and capacity of technology components within the Services;

(b) ensure that components within the IT infrastructure are monitored and measured, and that data is collected, analyzed, and reported;

(c) use automated tools to manage thresholds of components;

(d) ensure that situations where service targets are breached or threatened by component usage or performance are identified, and actions taken to minimize or avoid potential impact;

(e) maintain an understanding of the capacity and utilization of each of the IT components that Contractor manages, including Equipment, Software, Telephony, and Networks;

(f) enable optimum resource usage in the delivery of the Services, install monitors, properly configure those monitors, and collect data;

(g) upon request, estimate the resource and utilization effects of planned changes;

(h) respond within designated timeframes in an effective manner to Incidents and Problems that are caused by a lack of resource or an inefficient use of a resource;

(i) identify components that are susceptible to failure and recommend solutions for UNHCR consideration; and

(j) support the upgrade, removal, or addition of capacity as necessary or directed to meet UNHCR requirements.

4.12. Capacity Management Reporting

Contractor shall:

(a) Provide monthly reporting of activities against the Capacity Plan;

(b) produce monthly Capacity Management reports in an agreed format on the current usage of resources, along with trends, forecasts, and exceptions that at a minimum includes:

(i) Service Capacity reports based on current performance compared to thresholds and forecast;

(ii) Component Capacity reports based on current performance compared to thresholds and forecast;

(iii) Capacity-related Incidents and Problems;

(iv) outstanding capacity improvements; and

(v) trend analysis of current performance.

(c) provide regular reporting on the Capacity of the IT Service Management processes (e.g. Incident Management, Request Fulfillment, Capacity Management) and the impact on Contractor's ability to provide Services.

5 Service Transition

5.1. Change Management

Change Management is the process responsible for controlling the lifecycle of all Changes, enabling beneficial Changes to be made with minimum disruption to IT Services.

An appropriate response to all requests for change entails a considered approach to assessment of change impact, risk, business continuity, resource requirements, change authorization, and especially to the realizable business benefit. The details of the Change Management standardized methods and procedures, along with the respective authorization bodies, roles, and responsibilities are defined in the UNHCR ICT Service Change Management document and represent this considered approach which is essential to maintain the required balance between the need for change and the impact of the change.

Contractor shall:

(a) Follow the Change Management Process/Procedures documented in the UNHCR ICT Service Change Management document;

(b) work with UNHCR to develop, document, improve, and enforce Change Management processes;

(c) integrate Contractor's Change Management process with the UNHCR Change Management process and systems;

(d) communicate and coordinate Change Management processes within Contractor's own organization;

(e) coordinate with the DIST Change Management, stakeholders, and designated Third Party vendors for Changes across all applications, system components, and parties;

(f) provide effective and agreed mechanisms for supporting UNHCR to ensure the proper handling of Changes, and for properly complying with prioritization of Changes;

(g) attend and participate in Change Advisory Board meetings;

(h) initiate Requests for Change with UNHCR as appropriate;

(i) use UNHCR standard forms that will be used to request Changes and that will remain in use throughout the life of the change until formal closure as called for by the Change Management Procedure;

(j) verify that all Contractor-initiated Requests For Change are done through the appropriate form, meet the appropriate criteria, and follow the approved process;

(k) report issues and status related to Change implementation to UNHCR;

(l) participate in post implementation reviews on Changes as requested by UNHCR; and

(m) cooperate and work with UNHCR on establishing and maintaining maintenance periods, which support both the regular and normal maintenance of the Infrastructure and Services while protecting UNHCR from undue risk and unplanned outages.

5.2. General Change Management

Contractor shall:

(a) Verify that Contractor personnel perform effective execution of the Change Management Process, as well as an appropriate review of planned changes with due consideration of the business and technology risk of planned changes, taking into consideration all defined criteria (such as complexity of change, the skill level of the individual(s) executing the change, the planned change execution timeframe, the change slot timeframe, the back-out timeframe, pre-change technical deployment planning, communication planning, post- change validation planning, and the relevant business processing criticality);

(b) perform approved Changes in UNHCR IT environments pertaining to the Services, including Changes to individual components and coordination of Changes across all components;

(c) with proper authorization, stop any approved changes that, in the professional view of the person(s) performing the Services, would compromise the continuation of Services to UNHCR, and act as the gatekeeper to production, unless expressly

overridden by UNHCR in accordance with the approved Change Management escalation process;

(d) monitor and report progress, issues, and status related to Change implementation to all relevant parties;

(e) coordinate review of any change failures with UNHCR;

(f) manage to resolution any deviation from effective Change Management Process, ensuring the purposeful review and closure of failed changes;

(g) not make Changes that may adversely affect the function or performance of Services or impact UNHCR business or operations, without obtaining prior UNHCR approval via the Change Management process; and

(h) close all Changes in accordance with the UNHCR Change Control Procedure.

5.3. Maintenance Periods

Contractor shall:

(a) Work with UNHCR to establish and document periods for maintenance, to include:

(i) periods for routine and regular maintenance for all Services under Contractor management;

(ii) periods for enterprise maintenance effecting multiple organizations (e.g. shared infrastructure);

(iii) processes for scheduling and approval;

(iv) processes for coordinating and planning maintenance periods;

(v) communications plans to support maintenance and inform UNHCR, Users, and Third Party vendors.

(b) communicate and re-communicate the established maintenance periods with UNHCR and Users, and, as necessary, communicate any time maintenance periods are revised;

(c) provide appropriate notice to UNHCR and Users of the maintenance to be performed during scheduled maintenance windows;

(d) change scheduled maintenance windows at UNHCR request and upon reasonable notice;

(e) schedule outages for maintenance, expansions, and modifications during hours that meet UNHCR business needs; and

(f) for emergency maintenance, provide UNHCR, Users, and Third-Party vendors with as much notice as possible, and perform such maintenance so as to minimize interference with business and operational needs.

5.4. Change Management Reporting

Customer shall:

(a) Support maintaining a Change Schedule of upcoming Releases and Changes as part of the Change Management process;

(b) ensure all approved Changes are recorded in the Change Schedule;

(c) provide monthly Change reports in a format agreed and includes key metrics including type, category, priority, effected service or system, and success/failure; and

(d) provide reporting on change activity to UNHCR as requested.

5.5. Asset & Configuration Management

Service Asset and Configuration Management is process that ensures that the assets required to deliver services are properly controlled and that accurate and reliable information about these assets is available when and where it is needed. This information includes details of how the assets have been configured and the relationships between assets. It is also responsible for tracking and reporting the value and ownership of IT assets throughout their lifecycle.

Contractor shall:

(a) Work with UNHCR to develop, document, and improve Asset & Configuration Management processes;

(b) cooperate in information exchange to improve end-to-end Asset & Configuration Management;

(c) integrate Contractor Asset & Configuration Management processes with UNHCR CM process and systems, where the processes interact;

(d) provide and enter configuration data to the UNHCR Configuration Management Database (CMDB);

(e) communicate and coordinate the Asset and Configuration Management processes and policies within Contractor's own organization; and

(f) work with UNHCR to create, maintain and execute Asset and Configuration Management policies, processes and plans.

5.6. General Asset & Configuration Management

Contractor shall:

(a) Conform operations to policies and procedures that set the objectives, scope, and principles that will ensure the success of the Asset & Configuration Management process;

(b) ensure that assets under Contractor management are identified, controlled, and properly cared for throughout their lifecycle;

(c) identify, control, record, report, audit, and verify services and other CIs, including versions, baselines, constituent components, their attributes relationships, and owners;

(d) account for, manage, and protect integrity of CIs through service lifecycle by working with Change Management to ensure that only authorized components are used and only authorized changes are made;

(e) maintain accurate configuration information on the historical, planned, and current state of services and other CIs including Operations Documents, Equipment, Software, and Applications used to provide the Services;

(f) conduct reviews to verify the existence of CIs including Operations Documents, Equipment, Software, and Applications and to check that they are correctly recorded in the CMDB; and

(g) follow the established categorization and classification structures to support the proper documentation and maintenance of CIs.

5.7. Configuration Management System

Contractor shall:

(a) Utilize the ITSM Application provided by UNHCR such that it serves as the single source of information regarding all CIs within Contractor scope;

(b) ensure that all Configuration data related to the Services resides in the CMDB; and

(c) work with UNHCR to automate processes, discovery tools, inventory, and validation tools, enterprise systems and network management tools to load and update the CMDB.

5.8. Physical Asset Management

Contractor shall:

(a) as described under the specific Service descriptions, Contractor is expected to maintain the asset register for all UNHCR assets under its mandate and work with UNHCR to ensure that the information in the asset register includes information of the asset tag, asset name, asset serial number, asset location, asset owner, asset class, and other asset attributes

(b) comply with UNHCR asset management policies, practices, and procedures for ensuring that a change to an asset is performed in a controlled and managed manner and protects the accuracy of information in the Asset Register;

(c) ensure that all fixed IT Assets are properly labelled and the assigned barcode visible, so that they can be easily identified and verified; and

(d) conduct a mid-year (in calendar Q2) and an annual (in calendar Q4) physical inventory check at HQ facilities, to include:

(i) Produce an initial report of the asset list;

(ii) perform physical check of each asset;

(iii) ensure assets are at the location designated in the registry;

(iv) update the registry if the asset is in a new location;

(v) identify missing assets;

(vi) produce a report resulting from the physical inventory check; and

(vii) submit the physical inventory report to the CIO for signature.

5.9. Software License Management

Contractor shall:

(a) Provide reports regarding deployed software/licenses as requested by UNHCR; and

(b) maintain a secure library of software distribution and keys, and document CIs of known type and status.

5.10. Asset & Configuration Management Reporting

Contractor shall:

(a) Provide a monthly report on configuration Changes made to the infrastructure, Equipment, and Software;

(b) provide reports regarding CIs and configurations as requested by UNHCR; and

(c) enable reporting capability for use by UNHCR Users in the generation of standard and custom reports.

5.11. Release & Deployment Management

Release and Deployment Management aims to plan, schedule, and control the movement of releases to test and live environments. The primary goal of this ITIL process is to ensure that the integrity of the live environment is protected and that the correct components are released.

Contractor shall:

(a) Work with UNHCR to develop, document, and improve Release & Deployment Management processes;

(b) cooperate in information exchange to improve end-to-end Release Management;

(c) communicate and coordinate the Release & Deployment Management processes and policies within Contractor's own organization;

(d) conform Contractor operations to policies and procedures to ensure the success of the Release & Deployment Management process, including compliance with policies and procedures;

(e) maintain a Release & Deployment Management Plan, which includes the Deployment schedule, that ensures compliance with Release Management Policies and process;

(f) plan and oversee the successful roll-out of changes, including new and changed Software, as well as associated Hardware and documentation;

(g) provide liaison with Change Management to agree on the exact content and roll-out plan for each Release;

(h) establish software control and distribution procedures, including the management of the software Configuration Items and their distribution and implementation into a production environment;

(i) develop implementation and back-out plans for Contractor-managed Requests for Change that will be included in a Release;

(j) build, test, implement, and, if necessary, back out Releases;

(k) record the success and failure of Releases, including recording Incidents related to Release activities in the period following a Release;

(l) assign a single point of contact for each requested Release;

(m) provide proper testing for all Releases intended for managed environments; and

(n) manage the functions and work activities associated with Release Management, including:

(i) Create Release & Deployment plans;

(ii) coordinate the design, build, and configuration of the Release;

(iii) develop and coordinate Release communications plans;

(iv) coordinate Release acceptance activities with UNHCR;

(v) develop and implement deployment plan for the Release;

(vi) provide updates to UNHCR regarding Release status; and

(vii) formally review and close Releases (e.g. post-implementation review).

5.12. Pre-Production Testing

Contractor shall:

(a) Perform pre-production testing, for all Contractor-supported Software (e.g. Operating Software, Middleware, E-mail, COTS) unless specifically identified as not applicable;

(b) provide support to UNHCR for pre-production testing related to Applications supported by UNHCR where such testing involves Contractor-supported Software;

(c) verify projects are ready to move into production;

(d) coordinate the resolution of platform-integration-related issues with UNHCR;

(e) establish the test environment;

(f) develop the test plan, in accordance with the Release & Deployment Management policies;

(g) perform user, functional, performance, connectivity, and operations testing, as agreed in the test plan, log test results, and conduct a walk-through of results;

(h) ensure that errors discovered in testing, but not resolved, are logged through Problem Management or the Knowledge database;

(i) create a deployment guide for walk-through with UNHCR; and

(j) execute UNHCR-approved Release deployments for in-scope managed software, or as contracted for projects.

5.13. Request Fulfillment

Service Request Fulfillment is the process responsible for the lifecycle of all Service Requests, a request from a User for information or advice, or for a Standard Change, or for Access to an IT Service.

Contractor shall:

(a) Work with UNHCR to develop, document and improve Request Fulfillment processes;

(b) cooperate with UNHCR in implementing and maintaining Request Fulfillment and fulfillment processes that are flexible and facilitate effective communication and coordination across all functional areas and sites;

(c) cooperate in information exchange to improve end-to-end Request Fulfillment;

(d) integrate Contractor's Request Management process with the UNHCR Request Fulfillment process and systems, where the processes interact;

(e) establish on-going working relationships with UNHCR and DIST customers for effective Request Governance and the overall effective execution of the Request Fulfillment processes;

(f) accept end-to-end responsibility and assign ownership for each Service Request to a single Contractor staff member, thus minimizing redundant contacts between Contractor and Users;

(g) communicate and coordinate the Request Fulfillment processes and policies within Contractor's own organization;

(h) participate in developing and establishing Project and Request for Solution processes for the fulfillment of requests from simple through complex, requiring design, price, solution, and proposals, including appropriate communications to adequately set expectations and promote good customer service;

(i) participate with UNHCR in defining Request Fulfillment policies and procedures that ensure the success of the Request Management processes;

(j) cooperate with UNHCR in defining criteria and establishing processes for the prioritization and escalation of Service Requests, including normal and expedited handling; and

(k) participate in Service Request tracking efforts, and provide and maintain regular communications, between all parties until Request fulfillment.

5.14. General Request Fulfillment Management

Contractor shall:

(a) Manage the effective execution of Request Fulfillment to achieve its primary purpose to fulfill service requests within the agreed Service Level Requirements and promote User satisfaction;

(b) provide for mechanisms to support ordering and billing to designated Third Party vendors for requests associated with the delivery of Services and where authorized by UNHCR;

(c) engage in effective Request governance to ensure the following:

(i) Clearly define and document the type of Service Requests that will be handled within the Request Fulfillment process so that all parties are clear on the scope of Service Requests and the Request Fulfillment process;

(ii) establish and maintain definitions of all services; including descriptions, what services will be standardized, what services require custom solutions, and what services and components can be requested through each medium (e.g. Service Desk, Portal, Service Catalog, Service Request);

(iii) communicate to UNHCR and Users the definition of services, the Request Fulfillment processes and changes thereto; and

(iv) collect feedback from Users on the effectiveness of Request Fulfillment, and engage in activities to improve.

(d) enable multiple mediums for accepting Service Requests, including the Global Service Desk, online web portal, and Service Catalog;

(e) develop and document processes regarding interfaces, interaction, and responsibilities between Level 1 Support personnel, Level 2 Support personnel, and any other internal or external persons or entities that may support the fulfillment of Service Requests;

(f) provide a mechanism for handling Service Requests according to the agreed to prioritization as per processes agreed in the Request Management procedures, and appropriate SLAs;

(g) provide a mechanism for expedited handling of Service Requests that are of high business priority to UNHCR based on the assigned priority, as per escalation processes described in the Request Management processes;

(h) provide a mechanism for escalation of Service Requests that have missed or are at risk of missing expectations (e.g. fulfilment date, request scope, or other commitments), as per processes described in the agreed Request Management processes;

(i) update required information on Service Requests within designated timeframes to support an up-to-date accurate view of Service Requests;

(j) ensure proper approval, including any financial costs, associated with the Service Request (through automated means where practical) prior to Service Request fulfillment;

(k) provide regular communications between all parties and Users as required until Service Request completion and document the communications as per the Request Fulfillment processes and in accordance with agreed Service Levels;

(l) provide anticipated completion times for active Service Requests and update notification systems as required in the Request Fulfillment processes to keep UNHCR and Users informed;

(m) review Service Requests prior to closure to ensure proper categorization, documentation, confirmation of completion, and activities required to initiated appropriate actions / processes (e.g. configuration information updates, etc.);

(n) close Service Requests only after receiving confirmation from UNHCR or the requesting User that the Service Request has been completed;

(o) track the progress of fulfillment efforts and the status of all Service Requests;

(p) update details in the Asset Inventory and Management System and the CMS / CMDB, or coordinate with the relevant process to confirm updates are made - where Service Requests relate to the move of Assets;

(q) ensure that Service Requests follow the Change Management process as appropriate; and

(r) ensure the additions or removals of assets are fulfilled in compliance with requirements for redeployment and disposal of Equipment.

5.15. Request Fulfillment Management System

The Service Provider will utilize the ITSM Application provided by UNHCR to help provide a level of sophistication to Service Management and overall promote the timely fulfillment of Requests associated with the Services within designated timeframes that accurately prioritizes and coordinates fulfillment efforts according to the business need.

Contractor shall:

(a) Utilize the ITSM Application provided by UNHCR;

(b) provide for timely receipt and processing of all requests within designated timeframes from the Request Management System;

(c) utilize and update the ITSM Application with all relevant information relating to a Service Request;

(d) provide input to a central knowledge database to capture, store, and retrieve information and solutions for reuse; and

(e) enable reporting capability for use by UNHCR in the generation of standard and custom reports.

5.16. Service Request Reporting

Contractor shall:

(a) Provide a monthly report on use of the knowledge base to fulfil Service Requests;

(b) provide a monthly report, or more frequently as required by UNHCR, including but not limited to progress toward fulfillment and the status of all Service Requests, fulfillment timeframes, anticipated completion times, ownership, and categories of Service Requests;

(c) provide a monthly report on outstanding and aging Service Requests and the trends thereof;

(d) provide reports on all requesting mediums to show demand, forecasts on demand, trends, product health, spend, problem areas, and backlogs; and

(e) provide reports on the effectiveness of the Request for Solution process, including: time-to-solution, time-to-respond, accuracy of proposals, accuracy of forecast and captured compared to canceled.

6 *Service Operation*

6.1. Incident Management

Incident Management aims to manage the lifecycle of all Incidents (unplanned interruptions or reductions in quality of IT services). The primary objective of this ITIL process is to return the IT service to users as quickly as possible.

Incident Management Services shall encompass Incident Management processes in compliance with the tools and processes provided or approved by UNHCR. Contractor shall deploy and support these processes to restore service as quickly as possible, minimizing disruption to UNHCR, with emphasis on service quality, transparency, and the highest level of user satisfaction.

Contractor shall:

(a) Work with UNHCR to develop, document, and continuously improve Incident Management processes that will restore service operation as quickly as possible with minimum disruption to the business, thus enabling the best achievable levels of availability and service quality to be maintained to promote User satisfaction;

(b) manage the effective execution of Incident Management to achieve its primary purpose to restore service as quickly as possible with minimal business impact;

(c) implement an Incident Management process that is flexible and facilitates effective communication and coordination across functions and Sites;

(d) provide a mechanism for expedited handling and increased communication of Incidents that are of high business priority based on the assigned Severity Level, in compliance Service Level Requirements;

(e) actively cooperate in information exchange between and amongst Contractor personnel, UNHCR and Third-Party vendors to support incident resolution and improve end-to-end Incident Management;

(f) accept end-to-end responsibility and assign ownership for each Incident to a single Contractor staff member, thus minimizing redundant contacts between Contractor and Users;

(g) integrate Contractor Incident Management process with other service management processes, including Problem Management, Asset & Configuration Management, Service Level Management, and Change Management;

(h) actively support UNHCR to assure the proper application of Incident Management across all functions and organizations that provide services to Users;

(i) communicate and coordinate the Incident Management processes and policies within Contractor's organization, and as appropriate to Third Parties associated with the Services;

(j) participate in the definition and implementation of UNHCR Incident Management policies and procedures to ensure the success of Incident Management processes;

(k) provide effective and agreed mechanisms for properly complying with the Incident Management policies;

(l) provide effective and agreed mechanisms for properly complying with the agreed prioritization of incidents;

(m) support UNHCR as appropriate to ensure the proper routing of Incidents;

(n) initiate Problem Management with UNHCR for systemic incidents as appropriate and at a minimum when:

  (i) the Service is still interrupted, and a workaround is not available;

  (ii) the root cause of the Incident has not been identified;

  (iii) multiple occurrences of an Incident warrant a Root Cause Analysis; or

  (iv) requested by UNHCR (see Problem Management).

(o) support and initiate the additional treatment of Major Incidents;

(p) resolve as many Incidents as possible during the initial contact with the Global Service Desk, without transferring the call or using any escalation;

(q) review completeness of Incident (e.g. work detail notes) and perform management review and report accordingly;

(r) coordinate all activity for Incidents with UNHCR and Users until resolved and the Incident is closed;

(s) track and report the progress of resolution efforts and the status of all Incidents, including:

(i) review the proposed resolution time for each Incident with the appropriate party and update the status accordingly;

(ii) actively participate in Incident tracking efforts, and provide and maintain regular communications between all parties and Users until Incident resolution;

(iii) keep the UNHCR informed of anticipated resolution times for active Incidents;

(t) provide training on processes and tools for Incidents and escalations to Contractor Incident Management staff and other relevant resources involved with responding to Incidents;

(u) Provide additional treatment of Major Incidents as required.

6.2. Incidents

Contractor shall:

(a) Record Incidents in the ITSM Application, including classification;

(b) provide Incident detection, including links to event monitoring tools, reporting, recording, classification and initial support;

(c) provide Incident investigation, diagnosis, impact analysis, and reclassification as required;

(d) utilize and update the ITSM Application with all relevant information relating to an Incident within the designated time and in a complete manner;

(e) make an initial determination of the potential resolution and document in the ITSM Application;

(f) resolve Incidents requiring Level 1 Support and close the Incident, receiving confirmation from the affected User, or Contractor support personnel for incidents reported via an event detection tool;

(g) resolve Incidents arising from or related to the Services, including break/fix Hardware and Software support;

(h) act proactively, and coordinate with all other internal and external Third Parties to resolve Incidents and action Service Requests in a way that ensures effective coordination;

(i) transfer Incidents within specified time limits to the appropriate party without compromising Service Levels or security requirements;

(j) ensure that proper escalation and prioritization policies are managed to ensure incident response and resolution is handled within the guidelines of the agreed prioritization model;

(k) provide or coordinate the final resolution;

(l) ensure proper testing of incident resolution responses to ensure effective resolution and closure of the Incident while minimizing (unintended) impact to UNHCR;

(m) escalate issues to the appropriate levels for resolution in accordance with agreed escalation procedures;

(n) escalate an Incident where the Incident cannot be Resolved within the relevant Service Level Requirements or agreed timeframe;

(o) ensure consistent ownership of the Incident from recording to resolution;

(p) record all information on the details of the Incident and the corrective action for later statistical analysis;

(q) create an audit trail of all activity that creates, changes, or deletes data and user access to systems that contain UNHCR Data and preserves end-to-end traceability across Applications, systems, and parties;

(r) review Incidents prior to closure to ensure proper categorization, documentation, notifications, confirmation of resolution, agreement for closure, Root Cause Analysis, and activities required to initiate appropriate actions (e.g. configuration information updates, creation of Problem records);

(s) update relevant asset and configuration management systems (CMS / CMDB), or coordinate with the relevant process owners to confirm updates are made - where Incidents relate to the movement of assets; and

(t) initiate and manage such Changes through the Change Management process as appropriate - where Incidents result in a Change in the IT environment.

6.3. Major Incidents

Major Incidents cause serious interruptions of business activities and must be resolved with greater urgency. The aim is the fast recovery of the service, where necessary by means of a Workaround. If required, specialist support groups or third-party suppliers are involved. If the correction of the root cause is not possible, a Problem Record is created and the error-correction transferred to Problem Management.

Incident severity is defined by impact and severity. Major Incidents are categorized as critical or high priority Incidents. Key characteristics of Major Incidents are:

- The ability of significant numbers of Users to use or access systems or services is impacted;
- The cost to UNHCR, in terms of mission delivery, user productivity or dollars is or will be substantial, both in terms of direct and indirect costs; or
- The reputation of UNHCR is likely to be damaged.

Contractor shall:

(a) Work with UNHCR to document the standard process for managing Major Incidents;

(b) provide identification and assignment of a Major Incident, and the execution of the applicable processes, to an Incident Manager who provides an appropriate level of dedicated attention to the Incident;

(c) formulate a team, scoped as appropriate to the type of Incident, to work under the leadership of the Incident Manager, to focus on the Incident to ensure resources are dedicated to finding quick resolution;

(d) establish and provision any supporting communications and facilities, such as conference bridges or on-line tools that may be required to support the effective facilitation of Incident diagnosis and resolution;

(e) provide management and control of the Incident from identification through resolution, including:

(i) review of the estimated resolution time for each Major Incident with UNHCR and update the status accordingly;

(ii) keep UNHCR informed of changes in Incident status throughout the Incident life cycle, in accordance with Service Level Requirements; and

(iii) keep UNHCR informed of anticipated resolution times for active Major Incidents.

6.4. Incident Escalation

Contractor shall:

(a) Provide a process for escalating to Contractor management, Incidents not resolved in the time frames appropriate to the severity of the Incident and the priority of the user;

(b) provide process and procedures for UNHCR and Users to escalate Incidents;

(c) define and maintain published Incident escalation procedures;

(d) escalate Incidents according to processes and procedures approved by UNHCR;

(e) automatically prioritize high-impact Incidents, as agreed and defined with UNHCR, such that they are treated with the highest priority;

(f) provide for emergency escalations to suppliers, Third Party vendors and other Third Party resources at the discretion of UNHCR; and

(g) implement escalation processes and procedures that reflect and describe at a minimum the following items:

(i) Severity Level of the Incident;

(ii) impact to affected users (e.g. location and number of users).

(iii) priority of the user;

(iv) elapsed time before an Incident is escalated for resolution as if it were the next higher Severity Level;

(v) the levels of involvement and notification for escalation of Incidents, of Contractor management and UNHCR management at each Severity Level;

(vi) investigative and diagnostic activities to identify temporary workarounds for each Incident;

(vii) incident resolution activities to restore normal service in compliance with the Service Level Requirements;

(viii) ability to resolve Incidents by matching Incidents to known errors;

(ix) the process used to escalate Incidents to appropriate support teams when necessary;

(x) the process used to escalate Incidents to Contractor management team and/or the UNHCR management team.

6.5. Problem Management

Problem Management aims to manage the lifecycle of all Problems. The primary objectives of this ITIL process are to prevent Incidents from happening, and to minimize the impact of

incidents that cannot be prevented. 'Proactive Problem Management' analyzes Incident Records, and uses data collected by other IT Service Management processes to identify trends or significant Problems.

Contractor shall:

(a) Work with the UNHCR to develop, document, and continuously improve Problem Management processes;

(b) implement a robust and auditable process for Problem Management, which is approved by UNHCR;

(c) perform regular review of Incidents to identify recurring Incidents and associated Problems;

(d) use the approved Problem Management process to reduce the recurrence of Incidents;

(e) actively cooperate in information exchange between and among the Contractor, UNHCR, and Third-Party vendors to improve end-to-end Problem Management;

(f) integrate Contractor Problem Management process with the other Service Management processes, including Incident Management, Availability Management, Asset & Configuration Management, Service Level Management, Change Management, and Release & Deployment Management;

(g) communicate and coordinate Problem Management processes within Contractor's own organization;

(h) actively participate and effectively execute Root Cause Analysis and meet action item commitments assigned by the process;

(i) provide means for Problem records to be created from relevant sources, including Service Provider system tools and event monitoring systems;

(j) enable UNHCR to track requests for Problem Management initiation, by source, organization and User;

(k) implement means for using UNHCR prioritization and categorization of problems / known errors based on considerations of business impact, urgency and severity using the agreed method for prioritizing and categorizing incidents;

(l) coordinate Problem tracking efforts and notifications to UNHCR, and maintain regular communications between all parties until Problem resolution;

(m) coordinate all activity for Problem resolution with UNHCR until the Problem is closed; and

(n) actively participate in Major Problem reviews associated with all Major Incidents that arise or may arise out of the Services;

(o) routinely perform trend analyses on the volume and nature of Problems to identify areas for improvement; and

(p) provide additional treatment of Major Problems as required.

6.6. Root Cause Analysis

Root cause analysis (RCA) is a method of problem solving used for identifying the root causes of faults or Problems.

Contractor shall:

(a) Provide Root Cause Analysis (RCA) for Problems and Severity 1 Incidents;

(b) designate a Problem Coordinator to act as the day-to-day interface into the RCA process;

(c) assign RCAs to an analyst to facilitate data gathering, interviews, analysis, and formulation of report;

(d) ensure that all appropriate roles are engaged to perform RCA tasks;

(e) document the RCA activity and outcomes in records associated with Problems, and Major Problem reviews, including the following at a minimum:

  (i) Identification of associated Problem record;

  (ii) details of action taken to analyze the root cause, including details regarding the use of standard problem analysis tools;

  (iii) details of findings from analysis of the root cause; and

  (iv) provide tracking and reporting of RCA actions to completion.

(f) track open RCAs and identify any RCA that requires increased focus to meet committed service levels;

(g) perform Root Cause Analysis, to include:

  (i) investigating and identifying the root cause of the Problem;

  (ii) take all available information for a Problem resolution, analyze it, formulate a hypothesis of the actual cause, promote peer review, adjust as needed, and present conclusions;

  (iii) make recommendations to prevent recurrence of Incidents and Problems.

(h) managing RCA actions within agreed times; and

(i) provide RCA reporting to UNHCR.

7 *Continual Service Improvement*

The goal of Continual Service Improvement (CSI) is to maintain quality assurance and gradually improve business-aligned service quality. Operating under an ITIL framework, UNHCR expects that Contractor will employ a CSI program to provide continually improving Services that meet and exceed the agreed Service Level Requirements, a high level of customer satisfaction, and UNHCR standards.

7.1. Service Review

Contractor will review Services on a regular basis. The aim of this process is to improve service quality where necessary, and to identify more economical ways of providing a service where possible.

7.2. Process Evaluation

Contractor will evaluate processes on a regular basis. This includes identifying areas where the targeted process metrics are not reached, and holding regular benchmarking, audits, maturity assessments, and reviews.

7.3. Definition of CSI Initiatives

Contractor will work with UNHCR to define specific initiatives aimed at improving services and processes, based on the results of service reviews and process evaluations. The resulting initiatives are either internal initiatives pursued by the service provider on his own behalf, or initiatives which require the customer's cooperation.

7.4. Monitoring of CSI Initiatives

To verify if improvement initiatives are proceeding according to plan, and to introduce corrective measures where necessary.

8 Vendor Management

8.1. Vendor Management

Contractor shall:

(a) Manage the day to day relationship with suppliers and the underpinning contracts for support and maintenance of software and hardware under Contractor's UNCHR mandate. This will include:

(i) Coordination with suppliers for support services;

(ii) logging and monitoring incidents and problems with original equipment manufacturers (OEM) suppliers;

(iii) escalation of Incidents and Problems as required ensuring speedy resolution or the provision of an acceptable work-around pending resolution;

(iv) managing any assets sent for repair or replacement; and

(v) periodic review, with UNHCR, of the supplier's performance against the service level agreements (SLAs) in the under-pinning contracts.

(b) participate in contract and SLA negotiation as requested from time-to-time by UNHCR.

9 Tools

9.1. UNHCR Applications and Tools

The applications and tools listed in Appendix A to this Schedule 12 allow, or enable, the Contractor to perform the Services.

Contractor shall:

(a) Use, administer and/or maintain the applications and tools set forth in Appendix A to this Schedule 12 in support of UNHCR and the Services.

9.2. Contractor Proposed Tools

(a) During the term of the Agreement, Contractor may propose to UNHCR the use of certain tools not currently available to Contractor under the Agreement, in which case, Contractor shall provide UNHCR with a description of the proposed tool, the number of licenses required, the cost of the licenses, and the license terms and conditions; and

(b) upon receipt of the information in the foregoing section 9.2(a), UNHCR shall have the right to accept or reject Contractor's request for the new tool and, if accepted, to determine whether it is more cost effective for UNHCR to procure the licenses directly from the Third-Party supplier. If UNHCR determines that it is more cost effective for it to procure the licenses, UNHCR shall notify Contractor of its intention to procure the licenses and proceed to acquire the licenses in accordance with a mutually agreed schedule.

10 Sites

10.1. Sites

Contractor shall:

(a) Provide the Services at the Sites set forth in Appendix B to this Schedule 12 in the manner provided therein (i.e., on-site, on-call, and/or remote support).